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AMENDMENT TO THE SPECIFICATION

Please amend paragraph [0027] of the specification as follows:

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[0027] Figure 3 provides some embodiments of acridinium esters and acridinium 2'1 2007 sulfonamides useful in the present invention. Figure 3a is the acridinium C₂NHS ester, 4-(2-sucinimidyl succinimidyl-oxycarbonylethyl)-phenyl-10-acridinium-9-carboxylate trifluoromethyl sulfonate. Figure 3b is 1-methyl-acridinium ester, and Figure 3c is 1-methyl-di-meta-fluoro-acridinium ester.

Please amend paragraph [0031] of the specification as follows:

[0031] Attachment of acridinium esters to nucleic acids containing a primary amino group is carried out by dissolving the acridinum ester in a dry aprotic solvent such as dimethyl formamide and adding the solution to the nucleic acid in a suitable buffer. Suitable buffers include those that do not have amine groups, such as borate or bicarbonate buffers at a pH of between 7 and 10, although a pH of 8.5 is generally desirable for labeling. Excess acridinium ester label is easily removed by dialysis or gel filtration through a resin such as Sephadex G-10. Thus, in one embodiment the acridinium ester is 4-(2-sucinimidyl-oxycarbonylethyl) 4-(2-sucinimidyl-oxycarbonylethyl)-phenyl-10-acridinum-9-carboxylate trifluoromethyl sulfonate, and has a molecular weight of 632.55.